

# Chang Gung Medical Journal

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### REVIEW ARTICLES

**449 Dietary Polyphenols as Antioxidants and Anticancer Agents: More Questions than Answers**

Miao-Lin Hu, PhD

Dietary polyphenols may exert their anticancer effects through removal of carcinogenic agents, modulation of cancer cell signaling as well as antioxidant enzymatic activities, and induction of apoptosis and cell cycle arrest. Some of these effects may be related to their antioxidant activities, which can be classified as direct scavenging activity toward reactive species and indirect antioxidant activity that promotes the expression of cellular antioxidant enzymes. However, questions remain unresolved regarding the in vivo relevance of their antioxidant activities, their potential pro-oxidant effects, and the relationship between antioxidant activities and anticancer effects.

**461 Fluoroquinolone-associated Tendinopathy**

Wen-Chung Tsai, MD, PhD; Yun-Ming Yang, MD

The fluoroquinolones (FQs) are used to treat a wide range of infections. FQ-associated tendinopathy and tendon rupture have been reported and are debilitating. Achilles tendinopathy or rupture is among the most serious side effects associated with FQ use, with reports markedly increasing, especially with the use of ciprofloxacin. The possible mechanisms are inhibition of tenocyte proliferation and migration as well as degradation of type I collagen. Management of FQ-associated tendinopathy includes immediate discontinuation of the medication, rest, non-steroidal anti-inflammatory drugs, physical modalities and eccentric strengthening exercise. Tendon rupture may require surgical intervention.

### ORIGINAL ARTICLES

**468 EMR2 Receptor Ligation Modulates Cytokine Secretion Profiles and Cell Survival of Lipopolysaccharide-treated Neutrophils**

Tzu-Ying Chen, MSc; Tsong-Long Hwang, PhD; Chun-Yen Lin, MD, DPhil;  
Tsung-Nan Lin, MD; Hsin-Yi Lai, MSc; Wen-Pin Tsai, MD; Hsi-Hsien Lin, PhD

Epidermal growth factor-like module-containing mucin-like hormone receptor-like 2 (EMR2) is an adhesion G protein-coupled receptor previously shown to potentiate neutrophil responses to a number of inflammatory stimuli. EMR2 activation promotes neutrophil adhesion and migration, and augments production of reactive oxygen species and degranulation. Herein, we confirmed the specific priming effect of EMR2 in neutrophils. Furthermore, we demonstrated that ligation of EMR2 changes the secretion profiles of multiple cytokines, and suppresses lipopolysaccharide-induced neutrophil survival. Finally, higher levels of EMR2 were detected on neutrophils of liver cirrhosis patients and were correlated to a pro-apoptotic phenotype. Collectively, these data indicate a functional role for EMR2 in the modulation of neutrophil activation during inflammation.

**478 Biochemotherapy with Carmustine, Cisplatin, Dacarbazine, Tamoxifen and Low-dose Interleukin-2 for Patients with Metastatic Malignant Melanoma**

Po-Jung Su, MD; Jen-Shi Chen, MD; Chuang-Chi Liaw, MD; Hsien-Kun Chang, MD;  
Hung-Ming Wang, MD; Tsia-Sheng Yang, MD; Yung-Chang Lin, MD; Chi-Ting Liao, MD;  
Hsin-Yi Yang, MS; Kun-Yun Yeh, MD, PhD; Ming-Mo Ho, MD; Nai-Jun Chang, MD;  
Cheng-Hsu Wang, MD; John Wen-Chen Chang, MD

Forty patients with metastatic chemo-naïve malignant melanoma (MM) were enrolled to evaluate the toxicity and efficacy of biochemotherapy with low-dose interleukin-2 (IL-2). We prescribed biochemotherapy (BCDT regimen) with carmustine, cisplatin, dacarbazine, and tamoxifen, plus low-dose IL-2. Major grade 3-4 toxicities included neutropenia, anemia, and thrombocytopenia. Constitutional IL-2 toxicities included indurate injection site, fever, chills, itchy skin, bone pain, and myalgia. The response rate was 32.5%. The median progression-free survival and overall survival were 6.2 and 11.3 months, respectively. Five patients with oligo-metastasis achieved 5-year survivals. Low-dose IL-2 plus BCDT is tolerable and has durable benefits in a subgroup of patients with metastatic MM.

- 487 Serum HCV RNA Level Is Not Associated with Insulin Resistance and Metabolic Syndrome in Chronic Hepatitis C Patients with Genotype 1 or 2 Infection**  
Hao-Chun Huang, MD; Chia-Sheng Chuang, MD; Yung-Yu Hsieh, MD; Te-Sheng Chang, MD; Kuo-Liang Wei, MD; Chien-Heng Shen, MD; Cheng-Shyong Wu, PhD; Shui-Yi Tung, MD  
Previous studies have shown that insulin resistance (IR) affects chronic hepatitis C virus (HCV) infection. However, the correlations among IR, metabolic syndrome (MS), and serum HCV RNA levels are still controversial. We found that IR and MS are not uncommon in patients with chronic hepatitis C, the serum HCV RNA level is not associated with the presence of IR or MS in patients with chronic hepatitis C genotype 1 or 2 infection, and the impact of hepatitis C virus on IR is not dose responsive.
- 497 Does Adequate Bladder Cuff Excision Impact Outcomes in Patients Undergoing Nephroureterectomy for Upper Tract Urothelial Carcinoma**  
Chen-Pang Hou, MD; Phei-Lang Chang, MD; Chien-Lun Chen, MD, PhD; Yu-Hsiang Lin, MD; Ke-Hung Tsui, MD  
Our study showed that adequate bladder cuff excision plays an extremely important role in nephroureterectomy. It was identified as one of the independent factors affecting tumor recurrence-free survival. The bladder cuff should be excised as completely as possible during when performing this operation. Once non-adequate excision is found during cystoscopy, close follow-up and resection via cystoscopy are crucial when the tumor recurs intravesically.
- 506 Is A Biopsy Necessary for Colon Polyps Suitable for Polypectomy When Performing A Colonoscopy?**  
Chih-Hung Chen, MD; Keng-Liang Wu, MD; Ming-Luen Hu, MD; Yi-Chun Chiu, MD; Wei-Chen Tai, MD; Shue-Shian Chiou, MD; Seng-Kee Chuah, MD  
This study aims to analyze the appropriateness of the conventional biopsy method in diagnosing early colon cancer and the necessity for subsequent surgery after polypectomy. A total of 1027 adenomatous polypoid specimens taken from 720 patients who received polypectomy by conventional white light colonoscopy were studied. The pathologic reports of 26 specimens of early cancer or high grade dysplasia from 25 patients were analyzed. Among these, 7 lesions from 7 patients received a randomized biopsy instead of immediate polypectomy because of failure of consensus on. Only one malignancy was detected (false negative rate: 86%). The randomized biopsy method is not necessary in cases of the protruding type of polyps which can be removed by polypectomy.
- 512 Complications of Hip Fractures in Children**  
Feng-Chih Kuo, MD; Shu-Jui Kuo, MD; Jih-Yang Ko, MD; To Wong, MD  
Twenty-three patients (15 boys and 8 girls) with hip fractures (3 transepiphyseal fractures, 13 transcervical fractures, 6 cervico-trochanteric fractures, and 1 intertrochanteric fracture) were retrospectively evaluated. After a mean follow-up of 4.91 years, osteonecrosis was found in 11 (47.8%), premature physeal closure in 11 (47.8%), coxa vara in 3 (13%) and coxa valga in 2 (8.7%). Poor outcomes were related to the development of osteonecrosis. The time to surgery ( $\leq 12$  hours) and the quality of reduction significantly influenced the occurrence of osteonecrosis.
- 520 Predictors of Outcome after Open Repair of Ruptured Abdominal Aortic Aneurysms**  
Hao-Jui Li, MD; Tsung-Chi Kao, MD; Dah-Wel Liu, MD; Sheng-Yueh Yu, MD; Po-Jen Ko, MD; Hung-Chang Hsieh, MD  
A retrospective chart review of 127 consecutive patients was performed to determine predictors associated with early hospital death, 30-day mortality, and long-term survival after open surgical treatment of a ruptured abdominal aortic aneurysm. Significant predictors of mortality included hemodynamically unstable state, age > 75 years old, intraperitoneal rupture, low intraoperative urine output, and suprarenal cross-clamping.
- 528 The Impact of Personality on Depression among University Students in Taiwan**  
Shu-Maan Chang, MS; Daniel W. Law, PhD; Her-Kun Chang, PhD  
Depression in Taiwanese university students is a prevalent and expensive problem. The current study examines depression in relation to selected personality traits. Consistent with prior results, the results of this study indicate a high prevalence of depression in students. Ideas of being persecuted and self depreciation collectively

contribute to depression. The implications of this research for university administrators and medical professionals are discussed.

## CASE REPORTS

### **536 Amisulpride and Neuroleptic Malignant Syndrome**

Ming-Che Tu, MD; Cheng-Cheng Hsiao, MD

Neuroleptic malignant syndrome (NMS) is a rare but lethal complication of neuroleptics. Amisulpride was associated with rhabdomyolysis in one report and NMS in two reports. Dopamine receptor blockade is theorized to play a central role in the pathogenesis. Unlike conventional presentations, amisulpride induces an atypical form of NMS, which presents with lower degrees of hyperthermia and elevation of creatine kinase than the typical form. This study describes the first case of amisulpride-induced NMS in Taiwan, together with a review of current knowledge about NMS.

### **541 Ruptured Aneurysm of the Accessory Middle Cerebral Artery Associated with Moyamoya Disease – A Case Report**

Cheng-Chi Lee, MD; Zhuo-Hao Liu, MD; Shih-Ming Jung, MD; Tao-Chieh Yang, MD

An accessory middle cerebral artery aneurysm associated with Moyamoya disease is extremely rare. The peripheral accessory middle cerebral artery aneurysm was successfully excised with frameless navigation guidance in our case patient. The management of an aneurysm in Moyamoya disease should be modified based on its location and collateral vessels. Prevention of aneurysm bleeding and preservation of collateral vessels during craniotomy are critical issues when managing hemorrhagic Moyamoya disease.

## LETTER TO THE EDITOR

### **548 Innervation of the Inferior Oblique Muscle: Anatomical Facts**

Fairus Ahmad, MD; Srijit Das, MD

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